

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-006694**Date Inspected:** 10-May-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 2200**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 630**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, Oregon

<b>CWI Name:</b>	Jon Nickolich		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No
<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved WPS:</b>	Yes	No N/A
<b>Delayed / Cancelled:</b>	Yes	No N/A

**Bridge No:** 34-0006**Component:** Hinge K Pipe Beams**Summary of Items Observed:**

On this date, Caltrans Quality Assurance Inspector (QA) Sherri Brannon is present at the Oregon Iron Works, Inc. (OIW) jobsite in Clackamas, Oregon for the purpose of observing fabrication of the Hinge K Pipe Beams.

**OIW Fabrication Shop-Bay 3 (sub-assembly):**

QA Inspector Brannon randomly observed OIW qualified welder Mr. Jayson Sinsel Heaton ID#S58 and one helper tack welding joining stiffener ring MK #a125 (HPS 485 W) to hinge K pipe beam half section MK#a124-14 (HPS 485 W). The partial joint penetration (PJP) groove weld is identified as weld joint #WM3-17. Mr. Heaton was observed welding in the 1G (flat) position utilizing flux cored arc welding (FCAW) process with a 1.6mm diameter electrode, filler metal brand Select Arc class select 920-Ni1 semi-automatic. QA Inspector Brannon observed the OIW QC CWI Inspector Mr. Jon Nickolich verifying that the pre-heat and welding parameters were in accordance with the Welding Procedure Specification (WPS). Welding parameters measured by QA are as follows: 251 amps and 27.1 volts appear to be in conformance with approved welding procedure specification WPS 3049 revision number 0.

**OIW Fabrication Shop-Bay 3 (sub-assembly):**

QA Inspector Brannon randomly observed OIW qualified welder Mr. Jayson Sinsel Heaton ID#S58 and one helper welding root/fill pass's joining stiffener ring MK #a125 (HPS 485 W) to hinge K pipe beam half section MK#a124-14 (HPS 485 W). The partial joint penetration (PJP) groove weld is identified as weld joint #WM3-17. Mr. Heaton was observed welding in the 1G (flat) position utilizing submerged arc welding (SAW) process with a 2.4mm diameter electrode, filler metal brand Lincoln Electric LA85 class F9A4-Eni5-G-H2. QA Inspector Brannon observed the OIW QC CWI Inspector Mr. Jon Nickolich verifying that the pre-heat and welding

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parameters were in accordance with the Welding Procedure Specification (WPS). Welding parameters measured by QA are as follows for root/fill: 360/576 amps, 28.0/32.9 volts and a travel speed of 381/483mm per minute respectively appear to be in conformance with approved welding procedure specification WPS 4020 revision number 0.

### Quality Assurance Inspection (VT/MT):

QA Inspector Brannon performed visual inspection (VT) and magnetic particle testing (MT) root pass at hinge k pipe beam fuse section a124-14 (HPS 485 W) stiffener ring weld joint WM3-17 partial joint penetration (PJP) weld. See Caltrans Magnetic Particle Test Report, TL-6028 dated March 10, 2009 for additional information.

### Caltrans Status and Production Tracking:

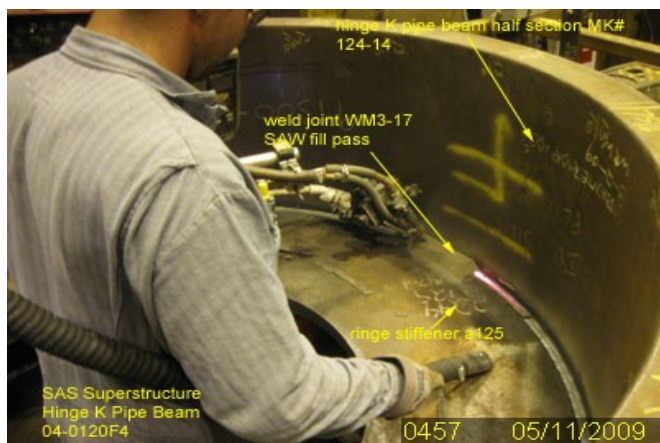
QA Inspector Brannon also updated Caltrans status and production tracking logs for tracking of check samples, procedure qualification record (PQR), critical weld repairs (CWR), non-critical welding repairs (WRR), completed and in process welding, QC/QA non-destructive testing.

### Material, Equipment, and Labor Tracking:

QA Inspector Brannon performed a verification of personnel at OIW. QA Inspector Brannon observed 1 Supervisor, 2 Quality Control and 2 production personnel on this date.

The following digital photograph below illustrates observation of the activities being performed.

Summary of Conversations: As noted within this report.



### Summary of Conversations:

No relevant conversations to report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

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**Inspected By:** Brannon, Sherri

Quality Assurance Inspector

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**Reviewed By:** Adame,Joe

QA Reviewer